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looking straight at *THEM!*

UNDERSTANDING THE BIG BUG MOVIES OF THE 1950S

ABSTRACT

Giant insects, from the ants of *Them!* to the locusts in *Beginning of the End*, featured prominently in Hollywood's postwar science fiction boom. Critics and historians have invariably interpreted these cinematic big bugs as symbolic manifestations of Cold War era anxieties, including nuclear fear, concern over communist infiltration, ambivalence about science and technocratic authority, and repressed Freudian impulses. This essay argues that Hollywood's mammoth arthropods should be taken more literally, less as metaphors than as insects, and that the big bug genre should be analyzed in the context of actual fears of insect invasion and growing misgivings about the safety and effectiveness of modern insecticides in 1950s and early 1960s America. In movies like *Them!*, worries about real-life insects on the loose, notably gypsy moths and imported fire ants, and uneasiness about pesticides like DDT were refracted through a cultural lens colored by superpower rivalries, nuclear proliferation, and a wide range of social tensions.

IF YOU HAPPENED to go to the movies very often in the 1950s and early 1960s, you were sure to have encountered more than your fair share of giant insects. In Hollywood's postwar sci-fi boom, which brought more than five hundred science fiction films to American movie palaces, neighborhood theaters, and drive-ins between 1948 and 1962, huge mutant arthropods frequently took the starring roles. Such movies ran the gamut from campy howlers with lamentable special effects to polished and relatively big-budget efforts like *Them!*, now regarded as something of a classic in the homicidal insect genre. *Them!*, which was Warner Brothers' highest grossing film of 1954, is the story of ants from the nuclear testing ranges of New Mexico, mutated to gargantuan size by long-term exposure to residual radiation. After making a mess of the rural southwest, the mammoth

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ants move on to the big city, turning the storm sewers of Los Angeles into a sprawling concrete ant hill. Happily for humanity, infantrymen with flame throwers do in the nest, roasting the terrifyingly fecund queen, and normalcy is restored to American society.

Them! was not only a box office hit, but was also an unlikely critical darling. *The Saturday Review* praised the film for being "as persuasively realistic a horror story as one could possibly imagine" while the usually dyspeptic Bosley Crowther of the *New York Times* lauded it for being "tense, absorbing, and surprisingly enough, somewhat convincing."[1] Other studios were quick to try cashing in on *Them!*'s success and soon giant arthropods were as common as chisel-jawed leading men and busty starlets on Hollywood's back lots.[2] *Mesa of Lost Women* was the charmingly awful story of giant arachnids produced by pituitary gland experiments gone terribly wrong; *Tarantula* (from 1955) was a similar tale of mutant lab spiders on the loose and controlled only thanks to the U.S. Air Force, a dashing jet pilot (played by a young Clint Eastwood), and the generous administration of napalm. *The Deadly Mantis* and *The Black Scorpion*, both from 1957, seem largely self-explanatory. *Beginning of the End* (with Peter Graves) is a campy treasure: Swarms of school-bus-sized locusts are produced from a USDA test of radioactive fertilizers and converge on Chicago after the world fails to notice that they've consumed most of downstate Illinois.[3] Wasps rendered monstrous by cosmic rays were the baddies in 1958's *The Monster from Green Hell*, and a giant man-eating black widow scared the penny loafers and bobby socks off the unsuspecting teenagers of River Falls, U.S.A. in *Earth vs. the Spider.* The ants threatening Charlton Heston's Amazon plantation in *The Naked Jungle* are just normal size but, as a terrified government official hysterically warns, the mammoth swarm becomes "a monster twenty miles long and two miles wide, forty square miles of agonizing death." Other films, like *The Fly* and Roger Corman's no-budget groaner *The Wasp Woman*, posit the grotesque fusion of humans and insects in biologically improbable (but visually arresting) ways. And in *The Incredible Shrinking Man*, a movie far more thoughtful than its title would suggest, the

Figure 1. *Tarantula* (1955).

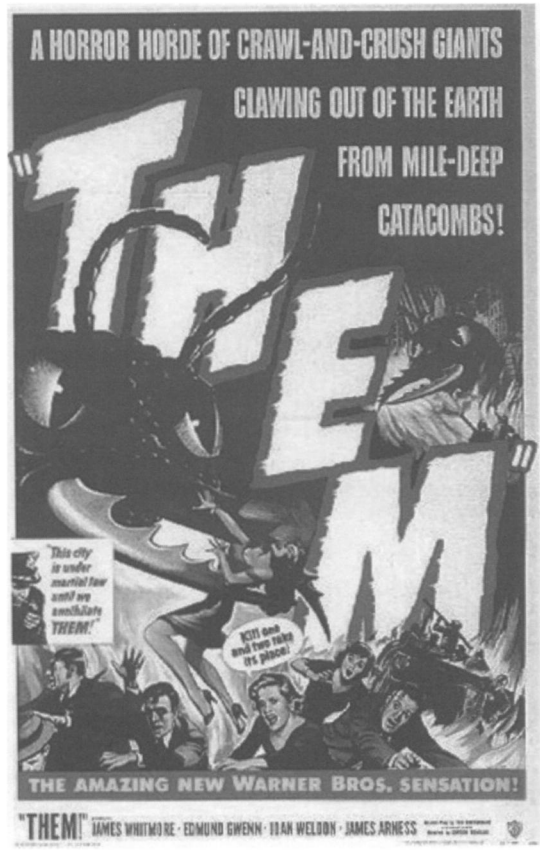
Courtesy http://www.monstershack.net/posters/posters_5.htm.

Look out for that giant metaphor! Cinematic creatures like the mutated arachnid star of this film have generally been interpreted by scholars as transparent symbols of America's political, social, and cultural fears during the 1950s and early 1960s.

unfortunate (and quite tiny) victim of toxic clouds of radiation and insecticide is forced to battle a spider with nothing but a pin and some bits of thread.

Giant insects put in cameos in dozens of other (largely forgotten) science fiction offerings and also cropped up in foreign-made films, notably *Horrors of Spider Island*, a hilarious German cheapie about a plane load of scantily clad fashion models marooned on a South Pacific atoll just crawling with breadbox-sized arachnids. This offering of Europe's finest cinematic cheese, also released under the improbable title *It's Hot in Paradise*, featured the classic big bug movie line, "A dead man, in a huge web ... Oh Gary!"[4] *The Blood Beast Terror*, a British production released in 1968, just after the golden age of big bug movies, creatively blended the horror and sci-fi genres by featuring a "were-moth" (think a lepidopteran werewolf) that drank human blood. Peter Cushing, whose filmography reveals much to be ashamed of, supposedly proclaimed this his least favorite movie. And finally, one should not forget that most famous and enduring of arthropod leading ladies, Mothra, who made her debut in 1961 and would go on to appear in thirteen films produced by Japan's Toho Studios, most recently in the 2004 Godzilla fiftieth-anniversary blockbuster. Not only was Mothra (with a 250-meter wingspan) significantly larger than all of Hollywood's big bugs, but she was also exceptional in having a name, an ascribed sex, a group of South Pacific islanders that worshipped her (as well as curious associations with Christianity, at least in her first feature), and a personality generally seen as gentle and benevolent, despite her periodic attacks on Japanese cities.[5]

Figure 2. *Them!* (1954).



Courtesy http://www.monstershack.net/posters/images/full_them.jpg.

This story of giant irradiated ants terrorizing the American southwest drew not only on Cold War paranoia, but also on very real fears at the time of invasion by imported Argentine fire ants and other destructive insects.

Few people are likely to see giant insect films as great cinema; even a hardcore science fiction fan will find it difficult to confuse *Horrors of Spider Island* with

Figure 3. *Earth vs. the Spider* (1958).

An outsized arachnid lays waste to Norman Rockwell's America. This film was made by producer/director Bert I. Gordon, often known as "Mr. Big," not only for his initials but also for his predilection for making movies featuring giant bugs, humans, rats, and lizards.

Citizen Kane. As one observer matter-of-factly noted, "it is difficult to describe how poorly written, badly acted, and cheaply made some of these films are."[6] Nevertheless, film scholars, critics, and even entomologists have devoted significant attention to this genre over the years and there is now a large and remarkably contentious literature available on what the big bug movies of the 1950s actually "mean."[7] Commentators, at least those who take films about overgrown tarantulas seriously, have (without exception) read Hollywood's giant insects as symbols and interpreted the movies as transparent, simplistic allegories reflecting the political, social, and cultural tensions of the time. Historians, film buffs, and sci-fi aficionados have all vied, over the past forty years or so, at cracking the code, at explaining what the cinematic insects represent, and what the movies really are all about.[8]

The oldest and most esteemed critical approach to movies like *Them!* is that they are all about nuclear fear, the widespread anxiety about the threat of atomic annihilation that (so the story goes) gnawed at the middle-class psyche throughout the glory days of the Pax Americana. Susan Sontag made just this argument in her seminal 1965 essay "The Imagination of Disaster." Surveying the giant monster movies that flourished in the years since Hiroshima and Nagasaki, Sontag concluded that "a mass trauma exists over the use of nuclear weapons and the possibility of future nuclear wars. Most of the science fiction films bear

witness to this trauma, and, in a way, attempt to exorcize it." Hollywood's mutated arthropods, Sontag goes on to argue, serve a complex psychological function for the anxious movie-going masses, at once distracting us from and numbing us to the ever-present possibility of nuclear Armageddon. "Ours is indeed an age of extremity," Sontag wrote.

> For we live under continual threat of two equally fearful, but seemingly opposed, destinies: unremitting banality and inconceivable terror. It is fantasy, served out in large rations by the popular arts, which allows most people to cope with these twin specters. For one job that fantasy can do is to lift us out of the unbearably humdrum and to distract us from terrors—real or anticipated—by an escape into exotic, dangerous situations which have last-minute happy endings. But another of the things that fantasy can do is to normalize what is psychologically unbearable, thereby inuring us to it. In one case, fantasy beautifies the world, in the other, it neutralizes it. The fantasy in science fiction films does both jobs. The films reflect world-wide anxieties, and they serve to allay them.[9]

As another influential critic put it, "The monster is the symbol of what we have to fear: it is not fear itself; it is the horror of what we have done, scientifically and militarily, to bring the world to the brink of destruction."[10] The fact that so many of the giant insects in Hollywood's celluloid fantasy worlds were offspring of The Bomb, generated directly or indirectly by nuclear radiation, only seems to confirm interpretations such as these.

To say that big bug movies drew upon postwar fears of nuclear holocaust is not, however, to imply that such films really engaged with "the serious ethical implications of atomic use and development."[11] Indeed, as Richard Hodgens has written, "A twelve-ton, woman-eating cockroach does not say anything about the bomb simply because it, too, is radioactive, or crawls out of a test site, and the filmmakers have simply attempted to make their monster more frightening by associating it with something serious."[12] Some critics have gone even further, dismissing "creature features" for trivializing the specter of nuclear war. To Jonathan Lake Crane, Hollywood products like *Them!* were "pathetic claptrap" which sought to "answer the most significant question of the twentieth century with tacky special effects, papier-mâché sets, and idiotic plots. How can lumbering dinosaurs spewing atomic fire, giant carnivorous plants, and implacable mutant insects approach the fiery chaos that engulfed Japan?"[13] A few authors have been yet more skeptical, dismissing the nuclear aspect of American Cold War cinema as nothing more than an expedient plot device. Bill Warren observed that "In the 1930s the equivalent gimmick was electricity; in the 1920s, it was surgery and often gland operations. In the 1950s, it was radiation that got the monster going. The 1930s didn't suffer from fear of electrical annihilation; although the 1950s did tend to be worried about atomic warfare, radiation in science fiction films wasn't a means of expressing this fear, probably not even unconsciously. It was just a way of originating an unusual or interesting menace. ... Radiation was used to explain many wonderful things, from giant insects to walking trees to resurrecting the dead. This was not a form of nuclear paranoia, merely cheap and simple plotting."[14]

Another common scholarly interpretation suggests that the mutant insect pictures of the 1950s were all about Cold War tensions and worries over the communist menace. Movies about common household pests, transformed into ruthless, faceless, ravenous hoards of predators, allegedly spoke to suspicions of infiltration, subversion, and invasion by "the Reds." Richard Leskosky details how, in *The Deadly Mantis*, the titular creature descends from the Arctic Circle to attack New York, tracked all along the way by the network of U.S. radar stations designed to detect Russian invasion: "The film actually begins with a lengthy documentary section of the DEW [distant early warning] line, its construction, and its function to prevent or at least warn of a sneak attack coming over the North Pole from an unmentioned Soviet Union. By penetrating all our radar defenses and evading our jet fighters, the giant mantis calls into question the ability of those lines of defense to provide the United States with valid protection against an invading human force and the atomic bombs it would likely be delivering."[15]

In the mindset of the time, insect invasions became "a code for fears of Soviet aggression."[16] Michael Rogin, among other commentators, has argued that the ant kingdom depicted in *Them!* represented communism, an "aggressive collectivist society" that had to be eradicated in order to preserve the American way of life. Considering that Gordon Douglas, the director of *Them!*, also had the 1951 film *I Was a Communist* to his credit, such a position may not be farfetched.[17] But as one unconvinced critic has protested, "To claim ... that the ants represent the communist threat ... is to make a mountain out of an anthill."[18]

Many critics also subscribed to the notion that the big bug flicks, beneath all those flailing antennae and snapping mandibles, were really nuanced (and often ambivalent) musings on science, authority, and the place of the military in civil society. As numerous writers have observed, 1950s science fiction demonized science while simultaneously exalting it. In so many of the giant insect features, the monsters were created by the irresponsible experimentation of stereotypical mad scientists, and yet, in the end, order is most often restored thanks to other, good scientists who rally technology—be it oscilloscopes, napalm, or shadowy secret weapons—to exterminate the threat. As Peter Biskind encapsulated it, "where science caused the problem, science often solved it too."[19] Similarly, even though the mutant insect films seem to reveal a certain anxiety about the abilities, motivations, and sheer power of the technocratic elites in postwar American society, most critics have read the creature features as unalloyed hymns to government power and the hierarchical status quo. As Vivian Sobchack argues, the classic "monster on the loose" movies all had a common "collective hero," that is "the organized institutions of the society, scientific, military, political," which adeptly led the nation through an unprecedented emergency and guaranteed the requisite happy ending.[20] As Andrew Tudor put it, "In this xenophobic universe we can do nothing but rely on the state, in the form of military, scientific and governmental elites. Only they have the recourse to the technical knowledge and coercive resources necessary for our defense. In this respect, then, fifties [sci-fi] movies teach us not so much 'to stop worrying and

Figure 4. *Earth vs. the Spider* (1958).

More fodder for Freudian analysis as an unwelcome pest shatters America's domestic bliss.

love the bomb' as 'to keep worrying and love the state,' an admonition which accords perfectly with the nuclear conscious cold war culture of the period."[21]

The other major interpretive framework regularly imposed upon giant insect films is Freudianism. Freud's theories have become more or less the lingua franca in discussing horror movies from Frankenstein to Freddy Krueger, and have been widely applied to 1950s science fiction features as well. "We have all learned," critic Noel Carroll assures us, "to treat the creatures of the night ... as creatures of the id."[22] That is to say, in a Freudian universe, huge wasps and grasshoppers are an externalization of all civilized people's internal conflicts with their primitive, instinctual, wishful, chaotic id, or unconscious. Creature features, then, according to Margaret Tarratt, "arrive at social comment through a dramatization of the individual's anxiety about his or her own repressed sexual desires, which are incompatible with the morals of civilized life."[23] Tarratt takes particular interest in giant insect movies, which she sees as being based on themes of impotence and frigidity, and ultimately revolving around the "fear of castration and dread of the phallic mother."[24] Noel Carroll goes even further, suggesting that "Giant insects are ... explicit symbol[s] of desire. Perhaps insects, especially spiders, can perform this role not only because of their resemblance to hands–the hairy hands of masturbation–but also because of their cultural association with impurity. At the same time, their identification as poisonous and predatory–

Figure 5. *Beginning of the End* (1957).

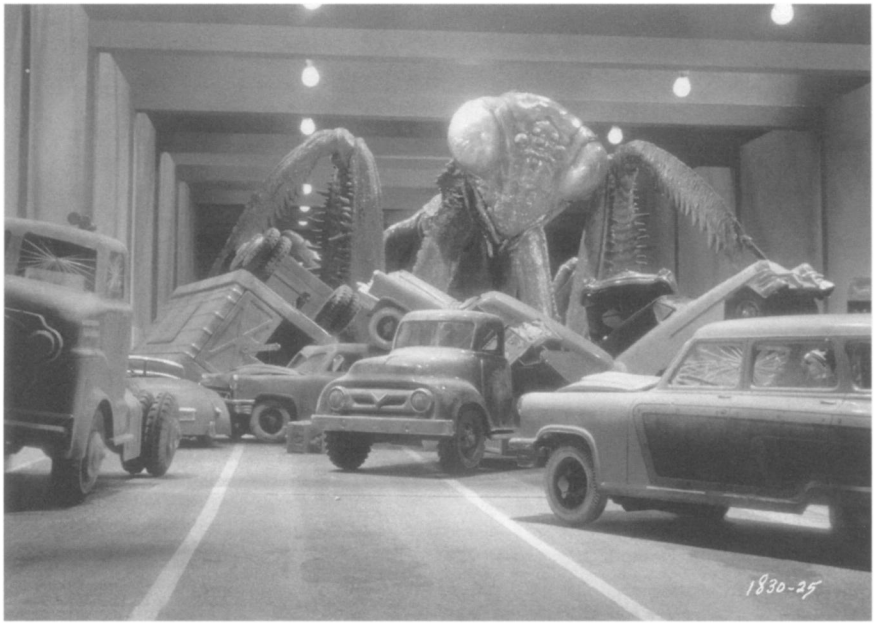
A swarm of giant locusts terrorizes Chicago in this film, also directed by Bert I. Gordon, a movie renowned for its low-budget special effects and credulity-stretching plot line. It drew upon contemporary concerns over the agricultural and economic damage wrought by uncontrolled insect populations.

devouring—can be mobilized to express anxious fantasies over sexuality. ... [The] predominant metaphor is that these creatures ... have been unfettered or unleashed, suggesting their close connection with erotic impulses."[25]

Although such analyses can certainly be taken too far—and Carroll's view of spiders would seem to cross that line—Freudianism does allow for some useful insights, into (for example) the preoccupation with the fecundity of queen bees, ants, or wasps in many big bug films, as well as the tendency of Hollywood's outsized arthropods, from the deadly mantis to giant locusts, to climb all over very phallic skyscrapers (viz the Wrigley Building in *Beginning of the End*) and the Washington Monument.

Almost countless other interpretive frameworks have been applied to 1950s insect pictures to tease out the supposed symbolism and the metaphorical messages buried deep within them. They're all about gender, some scholars argue, zeroing in on the numerous female scientists and ovulating arthropods showcased in the films. Others suggest that they actually derive from a more free-floating hysteria or general paranoia in American society at the time, what one commentator calls an "apocalyptic imagination."[26] Yet others maintain that they were really morality plays about juvenile delinquency, or musings on race relations and "white flight" from inner cities, or reflections of the American obsession with cleanliness and hygiene in the 1950s, or were simply successful formula

Figure 6. *The Deadly Mantis* (1957).



The titular 200-foot-long baddie in this film, directed by Nathan Juran, ties up traffic and eventually meets its end in New York City's Holland Tunnel. As one scientist in the film somberly declares, "In all the kingdom of the living, there is no more deadly or voracious creature than the praying mantis."

films, driven by the economics of good box office grosses rather than political, social, or cultural concerns.[27] One recent piece focuses on the bigness in the big bug equation, arguing that it was the sheer size of the arthropod protagonists that set the films apart and made them particularly transgressive and frightening (and thus appealing) to audiences. "When insects tower over humans, the natural order has been overturned," Richard Leskosky observes. "It is how the apocalypse would have gone if the writer of Revelation had been not John but an entomologist."[28] And then, of course, there are some who just ignore the genre altogether, dismissing creature features as ridiculous trash at the bottom end of double features, aimed at teenaged audiences more concerned with making out in the back row rather than any kind of meaningful cinematic content.

What is striking about the voluminous literature on 1950s science fiction films is that the most obvious and seemingly straightforward interpretations are invariably those that scholars and critics are the least likely to make. The following passage from Peter Biskind's influential 1983 book *Seeing is Believing: How Hollywood Taught Us to Stop Worrying and Love the Fifties* comes ever so close to making an observation revolutionary in its simplicity and unique in the historiography.

> Sci-fi has always been fascinated with the Other, and critics of popular culture have been quick to point out that the Other is always other than itself, which is to say, the pods and blobs are "symbols" standing for something else. Ever since Susan

> Sontag pointed to the fact that the Other in fifties sci-fi was often linked to radiation, it has been customary to equate the Other with the Bomb. John and Jane Doe may think they're being attacked by elephantine aphids run riot in their garden, but we know better. The hypothetical film informs us that a tactical nuclear weapon has been set off at the desert test site just ten miles away from the Doe residence; one step ahead, we realize that it is radiation that has caused the ravenous aphids to double in size every ten minutes, and jumping to conclusions, we decide that *The Attack of the Giant Aphids* is really about the arms race, and that John and Jane are down with a severe case of nuclear anxiety. But ... films like this are not primarily worried about the Bomb; they loved the Bomb, or at least the technology that made it possible. The Does may not be as dumb as we thought, and to understand what these films did worry about, all we have to do is look at what's before our own eyes: it's the aphids after all.[29]

But after Biskind provides us with this insightful analysis—and the powerful idea that we might want to focus on the obvious rather than on some kind of deeply buried symbolic codes—he proceeds to instantly undermine his own assertions. The full ending to this passage is "it's the aphids after all, nature run amok." So as soon as he has warned us off taking big bug films to be transparent allegories of Cold War anxieties, Biskind reinscribes Hollywood's mammoth arthropods as symbols, this time as stand-ins for the concept of nature. Biskind writes "it's the aphids after all," but he doesn't really mean it.[30]

This opens the door, however, to a heretical reading of big bug cinema. Put simply, I would like to suggest that the giant insect films of the 1950s were, in fact, about ... giant insects. Movies like *Them!* and *Earth vs. the Spider*, I would argue, reflected a widespread unease about insect infestation and humankind's ability to control it during the 1950s and early 1960s, that pre-*Silent Spring* heyday of DDT and sweeping government pest control offensives. The film critic John Brosnan, who grew up in western Australia, vividly remembered that *Them!* was not only terrifying, but also timely and curiously realistic: "A movie about giant ants must have seemed frighteningly feasible to me, as at the time Perth was suffering the great Argentine ant invasion which caused a great deal of chaos and inconvenience until a major extermination campaign got underway (the insecticides that were sprayed indiscriminately all over the city and the suburbs were probably more dangerous than the ants)."[31] Such concern with real-life insects on the loose was refracted, in Hollywood's hands, through a cultural lens colored by the Cold War, nuclear proliferation, and ambivalent attitudes toward the promise of science and the trustworthiness of elite expertise. In other words, the symbolism, metaphors, codes, and allegories cherished by generations of critics and scholars are all present in the fifties big bug classics, but we should never lose sight of those great, huge, and murderous creepy crawlies.

America, needless to say, has a long history of combating voracious and deadly insects, from the plagues of locusts that darkened midwestern skies, to the boll weevils that decimated cotton crops in the south, to the Japanese beetles that confounded backyard gardeners, to the mosquitoes that spread malaria and yellow fever. In the two decades following World War II, the rhetoric of the insect threat to America, as well as the technological arsenal available to control six-legged

pests, both reached new levels of intensity. The sense of public fear of destructive insects, stoked by entomologists, government officials, agricultural interests, and the pesticide industry, reached a fever pitch in the 1950s, at the very same time that giant bugs were swarming over movie screens across America. Books and magazines spoke of the insidious efficiency of insects, relentlessly consuming our crops, infiltrating our homes, and undermining our health; the arthropods, one entomologist direly warned, would "inherit the earth unless man abandons war and turns his martial interests to killing pests."[32] As numerous scholars have noted, through the 1950s, one can trace the process by which the vocabulary and imagery of pest control merged with the language of the Cold War. Commentators regularly wrote of the "war on insects," the invasions of pests, and the battles to exterminate unwanted species. Winston Churchill famously compared communism to white ant society and Billy Graham opened the 1952 session of the Senate praying for protection from "barbarians beating at our gates from without and moral termites from within."[33] "Would it not be funny," one U.S. representative observed, "to spend all these billions of dollars fighting communism and building the atomic bomb and then be eaten by the Argentine ant."[34] An article in *Today's Health*, a journal from the American Medical Association, offered an even more sobering jeremiad:

> People are much concerned these days with the threat of nuclear warfare; the fear that mankind may be destroyed and this planet blown into dust by the hydrogen bomb. The concern is well justified, and yet there is another threat to survival that is almost as dreadful and much closer. The danger does not await the poised finger of an irresponsible dictator; it is not held in abeyance by diplomats around a conference table, nor by threat of retaliation. ... The enemy is already here—in the skies, in the fields, and waterways. It is dug into every square foot of our earth; it has invaded homes, schoolhouses, public buildings; it has poisoned food and water; it brings sickness and death by germ warfare to countless millions of people every year. ... The enemy within—these walking, crawling, jumping, flying pests—destroy more crops than drought and floods. They destroy more buildings than fire. They are responsible for many of the most dreaded diseases of man and his domestic animals. ... Some of them eat or attack everything man owns or produces—including man himself.[35]

As this overwrought discourse suggests, the dire pronouncements of scientists in Hollywood big bug movies sometimes seemed like direct quotations from real entomologists of the time. What might seem to audiences today like screenwriters' hyperbole was in fact an accurate reflection of the overblown language used by real-world participants in the "war on insects." As Professor Harold Medford, the kindly myrmecologist portrayed by Academy Award winner Edmund Gwenn in *Them!*, explained it, "Ants are ruthless, savage and courageous fighters. Ants are the only other creatures on earth, other than man, who make war. They campaign. They are chronically aggressive. And they make slaves of the captives they don't kill. They have an instinct and a talent for industry, social organization and savagery which makes man look feeble by contrast."

In *Beginning of the End*, the entomologist Dr. Ed Wainwright (played by Peter Graves) shows a film-strip and carefully explains the realities of the insect threat

to Pentagon top brass, who would soon decide to nuke Chicago in order to stop the locust hordes.

> This, gentlemen, is the enemy. This locust, more commonly known as the grasshopper, is almost identical to the giant locusts of Ludlow, except for its size, and the fact that the giants' wings failed to develop—they cannot fly. The locust is intelligent and strong. Locusts follow a leader. Like the bee and the ant they are able to communicate with each other. This communication, or call, is produced by the hind legs. . . .
>
> We've been plagued by locusts since Biblical times. We've tried various means of combating them. As a matter of fact, in our own country, the early settlers of the Massachusetts Bay Colony armed themselves with bundles of brush and drove millions of locusts into the sea. Now today, despite the fact that we've developed powerful insecticides, the locust still inflicts damages to the tune of 25 million dollars in the United States alone. California, Colorado, Texas. . . .
>
> Even this small locust will attack a man. It has two powerful jaws that are edged with sharp teeth. It will kill other insects and devour them. If no other insects are available, it becomes a cannibal, turning on its own kind.
>
> Now you've seen what the locust can do at its normal size, smaller than your thumb. Imagine if you will a locust that's grown bigger than a man and is continuing to grow, some larger than others, but each a deadly killer. I hope you realize we haven't much time.

As this dialogue suggests, the gap between fact and fiction when it came to the insect threat in the 1950s was very thin indeed. Real-world fears of real-world pests flowed seamlessly into cinematic fears of fantastical giant ants and locusts.

Happily for humanity, or at least so it seemed, the years after World War II brought waves of new chemical pesticides onto the market. DDT was billed as the salvation of humankind, the "killer of killers," the "atomic bomb of insecticides," that promised to keep the hungry arthropod hoards at bay.[36] A poem by David McCord entitled "Dusty Answer," published in a 1944 issue of *The New Yorker*, sang the pesticide's praises:

> Little insect, roach, or flea,
> Have you met with DDT? ...
> Termite, moth, lamented louse:
> DDT is on the house.
> Should you enter with the cat,
> DDT takes care of that.
> Dusting DDT about
> Cures the cat but cuts you out.
> Do you fly or do you crawl?
> DDT will fix you all.[37]

But the reality of DDT and other potent new insecticides often did not live up to the entomologists' and chemical executives' sweeping claims. Huge government programs in the 1950s to combat persistent pests—the gypsy moth in the northeast and the imported fire ant in the deep south—turned into environmental nightmares and public relations disasters for the agencies involved. The indiscriminate spraying of DDT and other chemicals killed wildlife and sickened humans. Complaints from hunters, birdwatchers, and concerned parents swelled,

lawsuits started to fly, and the media jumped on the stories of expensive anti-insect crusades gone terribly wrong. Pesticide hazards, the president of the National Audubon Society declared, "may well rank in seriousness of adverse effects with the dangers of radioactive fall-out."[38] The cautious *Reader's Digest*, in a 1959 article "Backfire in the War Against Insects," maintained that "There is mounting evidence that massive aerial spraying of pesticides may do more harm than good. Until the full results are known, all concerned should heed the warning: 'Proceed with Caution.'"[39] Even one entomologist direly stated, "When properly used insecticides are very valuable tools, but like the 'A' bomb, if unwisely and wrongly used, they may lead us to our doom."[40] In the end, not only did the gypsy moth and fire ant debacles spawn swarms of controversy, casting doubt on the wisdom of government "experts" and their vast pest control schemes, but they also took the sheen off of DDT, that wondrous silver bullet now tarnished in the court of public opinion.[41]

Other complaints about modern chemical insecticides soon surfaced. Perhaps prime among them was the question of resistance. Although DDT's toxicity to insects had once seemed complete, reports of insect species which had become impervious to the pesticide increased exponentially during the 1950s. Even the newest super-insecticides were proving ineffective against some targets after only several years—and sometimes just several months—of application. Defensive government entomologists resorted to convenient military idioms: "We may win a battle," one wrote, "as we did with the introduction of DDT, but insects rapidly develop effective defensive measures and the war still goes on."[42] DDT, in other words, not only had dangerous side-effects, but was a weapon of limited long-term utility. Thus, by the late 1950s, the American public had begun to realize that neither the eggheads nor their chemicals were to be fully trusted, and that both might actually be more lethal, ruthless, and scary than the insect enemy they aspired to exterminate.

Not surprisingly, such anxieties were fully explored in Hollywood's big bug movies of the time. In numerous films, insecticides proved frustratingly ineffective on mutated arthropods. In *Beginning of the End*, for example, the giant locusts are "almost drowned" in chlordane by the military, but with no effect. A general lamely instructs an entomologist, as the monsters descend on Chicago, that "You'll have to come up with something stronger." In *Earth vs. the Spider*, the discovery of a ten-ton arachnid living on the edge of town first prompts an appeal to the Orkin Man: "Call the pest control people out in Springdale," the sheriff orders, "and have them send over all the DDT they can find." But even buckets of insecticide only succeed in knocking out the spider, who is later stirred back to consciousness by a particularly raucous sock-hop. As the town again prepares to battle the eight-legged menace, our hero resolutely declares, "DDT? No good. That stuff just stunned them." And we should not forget *The Incredible Shrinking Man*, a movie that demonstrates not just the toxicity of insecticides (which, when combined with radiation, become a very potent weight-loss tool), but also the inability of modern pesticides to keep the average suburban basement spider-free. Moreover, it is worth noting that, in the vast majority of giant insect

pictures, the marauding monsters are ultimately overcome not by sophisticated chemicals or powerful new weapons systems, but instead succumb to low-tech, non-chemical, non-technocratic tools: fire, water, electricity, a convenient volcanic eruption, or good old squashing. You don't need a PhD in entomology to know enough to fight giant flies with giant fly-swatters.

It is no wonder, then, that Hollywood stopped making giant insect films at just about the very time that Rachel Carson's *Silent Spring* was published. By the early 1960s, it had become clear that the potential of chemical insecticides like DDT and the threat of insect hoards overrunning humanity had both been wildly exaggerated. As the dreams and anxieties of the 1950s gave way to more balanced and level-headed understandings in the 1960s—insects were not poised to "inherit the earth" and, when it came to pest control, the solutions could be more dangerous than the problems themselves—movies about big bugs run amok no longer seemed so timely or so compelling. But in the 1950s, crowd-pleasing features like *Them!*, *The Deadly Mantis*, and *Tarantula* spoke to real and immediate fears of insect invasion and to growing misgivings about the safety and effectiveness of modern insecticides. Generations of film scholars and critics have assured us that Hollywood's giant arthropods were just a gimmick, convenient sci-fi bugaboos to use as symbols of deeper, more chilling, more important fears of nuclear war and annihilation in Cold War America. And while one might concede that some such nuclear angst was present in these films, one has to wonder if radiation was in fact the gimmick, little more than a handy magical force that could credibly transform backyard pests into rampaging monstrosities. The real horrors being exorcised in 1950s big bug features were, it seems, right up there on the screen.

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NOTES

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1. Quoted in Joyce A. Evans, *Celluloid Mushroom Clouds: Hollywood and the Atomic Bomb* (Boulder, CO: Westview Press, 1998), 103. See also David J. Skal, *Screams of Reason: Mad Science and Modern Culture* (New York: Norton, 1998), 185.
2. There is no exhaustive listing of giant insect films available, but admirable attempts can be found in James W. Mertins, "Arthropods on the Screen," *Bulletin of the Entomological Society of America* 32 (Summer 1986): 87-89; and May R. Berenbaum and Richard J. Leskosky, "Insects in Movies," in *Encyclopedia of Insects*, ed. Vincent H. Resh and Ring T. Cardé (New York: Academic Press, 2003), 759.

3. With Peter Graves starring in *Beginning of the End* and James Arness headlining *Them!*, the real-life brothers surely qualify as the first family of big bug cinema.
4. Entomologists have noted the scientific limitations of the monikers "big bug" and "giant insect" for the films under discussion. Taxonomically speaking, most of the creatures of "big bug" movies were not "bugs," a term that specifically refers to members of the order Hemiptera (or more narrowly the suborder Heteroptera). Spiders, meanwhile, are neither bugs nor insects (class Insecta), but belong to the class Arachnida. The phylum Arthropoda includes bugs, insects, and spiders, as well as crustaceans, scorpions, and centipedes, making "giant arthropod" movies more scientifically correct, if less appealing stylistically, as a nickname for the genre. See Berenbaum and Leskosky, "Insects in Movies," 756; and Richard J. Leskosky, "Size Matters: Big Bugs on the Big Screen," in *Insect Poetics*, ed. Eric C. Brown (Minneapolis: University of Minnesota Press, 2006), 320. James Mertins notes that arachnids are the arthropods most favored by filmmakers, followed by Hymenoptera and Lepidoptera, while "the relative rarity of beetles in films is notable in light of the great number of species." Mertins, "Arthropods," 89.
5. On Mothra, see Yoshikuni Igarashi, "Mothra's Gigantic Egg: Consuming the South Pacific in 1960s Japan," in *In Godzilla's Footsteps: Japanese Pop Culture Icons on the Global State*, ed. William Tsutsui and Michiko Ito (New York: Palgrave Macmillan, 2006), 83-102; Leskosky, "Size Matters," 336; and William Tsutsui, *Godzilla on My Mind: Fifty Years of the King of Monsters* (New York: Palgrave Macmillan, 2004), 47-48. Numerous authors have suggested that Mothra is a silkworm moth, which is presumed to give her special relevance to Japanese audiences due to the longstanding importance of the silk industry in Japan. Mothra does not, however, resemble the domesticated Japanese silkworm (Bombyx mori), though at least one entomologist suggests that she might be a member of the family Saturniidae, the wild giant silk moths. May Berenbaum, personal e-mail communication, December 9, 2006.
6. Mertins, "Arthropods," 86.
7. Berenbaum and Leskosky, for example, detail "the relatively sketchy familiarity most filmmakers have with entomological reality." A "recurring conceit" of the big bug movies is that insects grow so large "without suffering the limitations of tracheal respiration or ecdysis and sclerotization experienced by real-life arthropods." In other words, insects, at least within the prosaic constraints of science, simply cannot reach the mammoth sizes that Hollywood has imagined for them. Berenbaum and Leskosky, "Insects in Movies," 756. See also Leskosky, "Size Matters," 321-22; and Michael C. LaBarbera, "The Biology of B-Movie Monsters," *Fathom Archive*, 2003, http://fathom.lib.uchicago.edu/2/21701757/ (accessed December 23, 2006).
8. Postwar science fiction films have, in general, been interpreted as forms of "myth, metaphor, and allegory" that allow critics and historians to "read the malaise at the core of society." Sean Redmond, "Look to the Skies!," in *The Science Fiction Film Reader*, ed. Sean Redmond (London: Wallflower Press, 2004), 316. The film critic John Brosnan aptly titled a chapter in his survey of sci-fi cinema "The Metaphor that Ate Tokyo: Monster Movies of the Fifties": John Brosnan, *The Primal Screen: A History of Science Fiction Film* (London: Orbit Books, 1991), 85.
9. Susan Sontag, "The Imagination of Disaster" (1965) in *Against Interpretation and Other Essays* (New York: The Noonday Press, 1966), 218, 224-25.
10. Brian Murphy, "Monster Movies: They Came from Beneath the Fifties," *Journal of Popular Film* 1 (Winter 1972): 38.
11. Evans, *Celluloid Mushroom Clouds*, 77.
12. Quoted in Vivian Sobchack, *Screening Space: The American Science Fiction Film*, 2nd ed. (New York: Ungar, 1987), 49.

13. Jonathan Lake Crane, *Terror and Everyday Life* (Thousand Oaks, CA: Sage, 1994), 102.
14. Bill Warren, *Keep Watching the Skies! American Science Fiction Movies of the Fifties, Volume 1, 1950-1957* (Jefferson, NC: McFarland, 1982), xiii.
15. Leskosky, "Size Matters," 329.
16. Mark Jancovich, *Rational Fears: American Horror in the 1950s* (Manchester, UK: Manchester University Press, 1996), 15.
17. Michael Rogin, *Ronald Reagan, the Movie, and Other Episodes in Political Demonology* (Berkeley and Los Angeles: University of California Press, 1987), 263-64. See also Peter Biskind, *Seeing Is Believing: How Hollywood Taught Us to Stop Worrying and Love the Fifties* (New York: Pantheon, 1983), 123-36; and Jancovich, *Rational Fears*, 26-49.
18. Jerome F. Shapiro, *Atomic Bomb Cinema* (New York: Routledge, 2002), 105.
19. Biskind, *Seeing is Believing*, 104.
20. Sobchack, *Screening Space*, 45.
21. Quoted in Jancovich, *Rational Fears*, 15. Big bug movies fit comfortably within the convention of "secure horror," which allows moviegoers to witness their worst nightmares cinematically, but then be reassured at the end of the film when the monsters are conquered and the authorities put everything right with the world. Works of secure horror thus allow viewers to exorcise their real fears in the safety of a movie theater and through the fantasy worlds of sci-fi cinema. See Andrew Tudor, *Monsters and Mad Scientists: A Cultural History of the Horror Movie* (Oxford: Blackwell, 1989), 215; and Leskosky, "Size Matters," 319-20.
22. Noel Carroll, "Nightmare and the Horror Film: The Symbolic Biology of Fantastic Beings," *Film Quarterly* 34 (Spring 1981): 17; this discussion of Freudianism and monster movies borrows extensively from Tsutsui, *Godzilla on My Mind*, 108-10.
23. Margaret Tarratt, "Monsters from the Id" (1970), in *Film Genre Reader*, ed. Barry Keith Grant (Austin: University of Texas Press, 1986), 259.
24. Quoted in Sobchack, *Screening Space*, 48.
25. Carroll, "Nightmare," 22.
26. Shapiro, *Atomic Bomb Cinema*, 5.
27. On the very unlikely notion that *Them!* was a metaphor for race relations and an outlet for the paranoia of an embattled white middle class, see Eric Avila, "Dark City: White Flight and the Urban Science Fiction Film in Postwar America," in *Classic Hollywood: Classic Whiteness*, ed. Daniel Bernardi (Minneapolis: University of Minnesota Press, 2001), 52-71.
28. Leskosky, "Size Matters," 335.
29. Biskind, *Seeing is Believing*, 107. Another source that briefly discusses the "nascent environmentalism" of films like *Them!* is Skal, *Screams of Reason*, esp. 191ff.
30. Conceptions of nature in science fiction and monster films, and the broader cultural influence of these mass-culture depictions, are topics that environmental historians should explore in more depth. An interesting attempt to apply ecocriticism and theory to monster movies is Stacy Alaimo, "Discomforting Creatures: Monstrous Natures in Recent Films" in *Beyond Nature Writing: Expanding the Boundaries of Ecocriticism*, ed. Karla Armbruster and Kathleen R. Wallace (Charlottesville: University Press of Virginia, 2001), 279-96.
31. Brosnan, *Primal Screen*, 89.
32. Quoted in Edmund Russell, *War and Nature: Fighting Humans and Insects with Chemicals from World War I to* Silent Spring (Cambridge: Cambridge University Press, 2001), 166.
33. Quoted in Biskind, *Seeing is Believing*, 106.
34. Pete Daniel, "A Rogue Bureaucracy: The USDA Fire Ant Campaign of the Late 1950s," *Agricultural History* 64 (Spring 1990): 101.

35. Quoted in Jamie L. Whitten, *That We May Live* (Princeton: Van Nostrand, 1966), 211-12.
36. O. T. Zimmerman and Irvin Lavine, *DDT, Killer of Killers* (Dover, NH: Industrial Research Service, 1946); and Thomas R. Dunlap, *DDT: Scientists, Citizens, and Public Policy* (Princeton: Princeton University Press, 1981), 17.
37. Quoted in Russell, *War and Nature*, 129.
38. "Audubon Society Calls War on Fire Ants Chemical Peril to Humans and Wildlife," *New York Times,* December 25, 1957.
39. Quoted in Frank Graham, Jr., *Since* Silent Spring (Boston: Houghton Mifflin, 1970), 31.
40. Quoted in Russell, *War and Nature*, 167.
41. On the high-profile campaigns to combat the gypsy moth and fire ant "invasions," see Russell, *War and Nature*, 213-28; Andrew M. Liebhold, Joel A. Halverson, and Gregory A. Elmes, "Gypsy Moth Invasion in North America: A Quantitative Analysis," *Journal of Biogeography* 19 (September 1992): 512-20; Daniel, "A Rogue Bureaucracy," 99-114; Christopher J. Bosso, *Pesticides and Politics: The Life Cycle of a Public Issue* (Pittsburgh: University of Pittsburgh Press, 1987), esp. 79-108; and Richard Conniff, "You Never Know What the Fire Ant is Going to Do Next," *Smithsonian* 21 (July-August 1990): 48-52.
42. Quoted in Russell, *War and Nature*, 198.